

## AIM WALL CAVITY BARRIER & FIRE BARRIER SLAB

December 2003

### Introduction

AIM Wall Cavity Barrier is made from foil faced high density rock wool and is suitable for use in all cavity walls, as well as for fire stopping between a curtain wall system and a concrete floor slab.

The barrier prevents the passage of flame and smoke for the period of fire rating, specified below.

Wall Cavity Barrier is offered cut to suit cavity width, or supplied as Fire Barrier Slab for cutting to size on site. The foil facing is imprinted with the AIM logo and arrows which ensures authenticity of the product and assists with the cutting procedure, when slab is used. The Barrier is supplied unfaced when 50mm wide or less.

The barrier is permanently held in place by compression and by clips when used in the horizontal, without the need for adhesive or intumescent mastic. Wall Cavity Barrier is available notched and in non standard lengths.

### Curtain Wall Systems

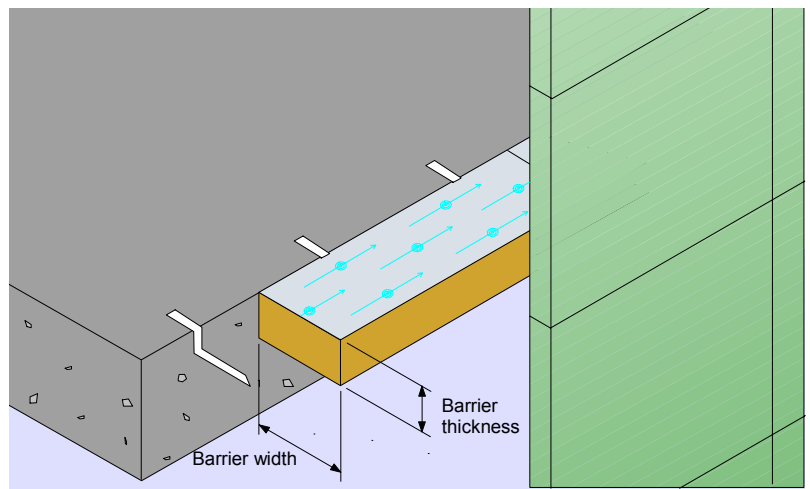
AIM Wall Cavity Barrier is suitable for use in curtain wall cladding systems. However the performance of the fire barrier is dependent upon the integrity and stability of the cladding system in the region of the barrier, for the duration of fire rating required.

In addition to this consideration, should the curtain wall cladding bow or distort significantly in a fire, the gap that the fire barrier is filling may widen and integrity

will be lost. If this is a possibility, the cladding system must be attached to the structural floor, close to the fire barrier, with steel brackets to ensure that the distance of separation cannot increase.

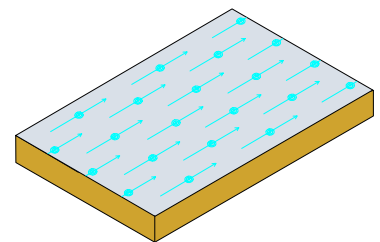
There are a great variety of Curtain Wall Cladding Systems available. The system manufacturer must confirm suitability of its use with fire barrier for the fire resistance period required

### *Foil Faced Mineral Wool Fire and Smoke Barrier for all cavity walls and curtain walls, horizontal and vertical use*



- ~ **Lengths: 1200mm**
- ~ **Available cut to size or in slabs**
- ~ **Foil Facing (with AIM logo)**
- ~ **Cavity widths: 15 - 600mm**  
**(barrier to be compressed by about 5%)**

### AIM FIRE BARRIER SLAB



- Foil facing imprinted with AIM logo  
 Cut in the direction of the arrow
- Slab thickness: 60 minutes -75mm  
 90 minutes -90mm  
 120 minutes -100mm
- Slab size: 1200x600mm or 1200x1200mm\*  
 \* Full pallets only

**Installation**

AIM Wall Cavity Barrier is push fitted into place; it must fit tightly and completely. The barrier must be compressed by about 5% when installed.

**Clips**

Clips are required when the barrier is installed horizontally. They may be omitted when the barrier is installed vertically into cavities less than 250mm, provided the barrier is supported at its base.

Two clips per length are required for cavities up to 400mm, three clips per length are required for cavities over 400mm (see table).

**Fitting**

For horizontal barrier, the zed clips should be embedded in the barrier prior to fitting so that the top leg of the clip is level with the top of the barrier. The barrier is pushed into the cavity until the top leg of the clips touches the floor slab, so that the top surface of the cavity barrier is flush with the slab.

For vertical barrier, where clips are used these may have to be fixed to the inner wall, before the barrier is installed. When the barrier has to be installed before the outer wall layer, the barrier may require retaining straps to prevent it falling off prior to completion of the wall.

Where AIM Wall Cavity Barrier has butt end joints, these must be tight. Make sure that the ends of adjoining barriers are fitted closely together.

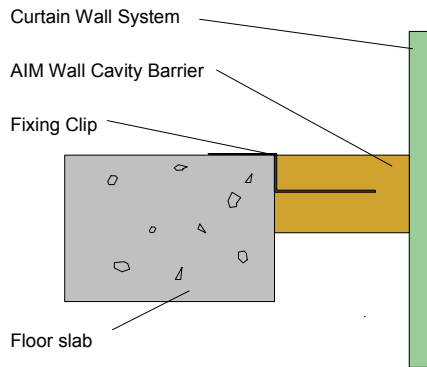
**Caution**

If the gap to be filled is between two building components which might separate in a fire, the two components must be connected with steel brackets to ensure that the distance of separation cannot increase. (See notes on Curtain Wall Systems overleaf)

**Masonry Cavity Walls**

**Horizontal Barrier.** Bed the fixing clips into the joints in the internal leaf. A damp proof membrane or cavity tray must be installed into the cavity wall immediately above, and to the outside of, the fire barrier. Clips may be omitted in masonry cavity walls, provided the barrier is installed immediately above a row of metal wall ties where these are spaced at no more than 600mm centres.

**FLOOR SLAB TO CURTAIN WALL**



Clip Selection Table		
Maximum Cavity mm	No. of Clips per Length of Barrier	Clip Gauge mm
400	2	0.9
500	3	1.2
600	3	1.6

**SAFETY NOTE - CLIPS**  
Clips must not be installed with the sharp points left exposed at any time, due to risk of serious injury.

**Fire Resistance**

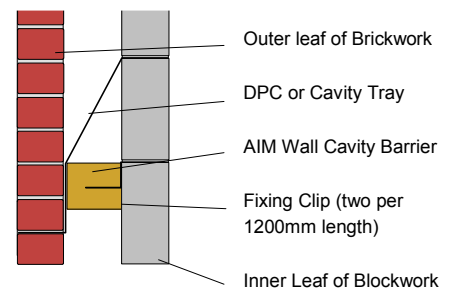
Thickness is measured as the distance between one compartment and the next, which the fire stop or barrier is separating. The 60 minute and 90 minute barriers have butt end joints. The 120 minute barrier has lap end joints. The performance of AIM Wall Cavity Barrier has been tested to BS 476 part 20 and assessed by Warrington Fire Research Centre to achieve the values as stated in the Fire Resistance Chart below.

Fire Resistance Minutes	Thickness of Fire Barrier mm
60	75—up to 300mm cavity 100— up to 600mm cavity
90	90—up to 300mm cavity 100— up to 600mm cavity
120	100mm with lap joints
240	100 EHD* with lap joints

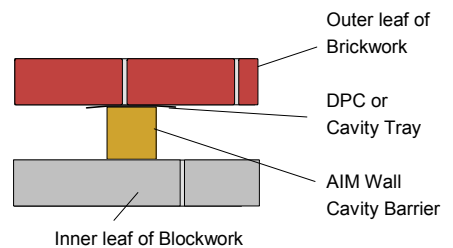
\*EHD = Extra high density barrier

AIM Wall Cavity Barrier is incombustible to BS 476 part 4, rated Class 1 Surface Spread of Flame to BS 476 part 7 and complies with the performance requirements of Class O of the Building Regulations.

**CAVITY WITHIN MASONRY WALL (barrier running horizontally)**

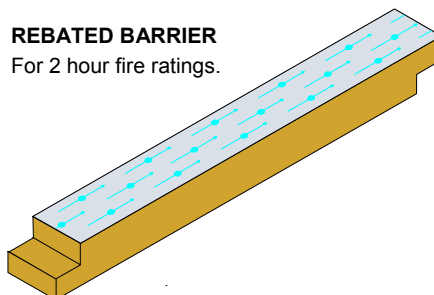


**CAVITY WITHIN MASONRY WALL (barrier running vertically)**



**REBATED BARRIER**

For 2 hour fire ratings.



**AIM Limited**

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